

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently Amended) A memory device as claimed in claim 21, ~~wherein the~~ piezoelectric material ~~is being~~ a ferroelectric material.
3. (Currently Amended) A memory device as claimed in claim 21, ~~wherein~~ ~~said the~~ first layer and ~~said the~~ second layer ~~are being~~ clamped together such as to enhance the amplitude of a voltage generated across one of the first and second layers due to the application of a voltage to the other of the first and second layers, the clamping together being achieved by one of the following ~~devices means~~: a ~~means for maintaining~~ device to maintain a constant spacing between ~~said the~~ first and third electrodes, and a ~~means for exerting~~ device to exert a constant force or stress upon one of the first and third electrodes relative to the other of the first and third electrodes.
4. (Currently Amended) A memory device as claimed in claim 2, ~~wherein~~ ~~said the~~ first layer and ~~said the~~ second layer ~~are being~~ clamped together such as to enhance the amplitude of a voltage generated across one of the first and second layers due to the application of a voltage to the other of the first and second layers, ~~said the~~ clamping together being achieved by one of the following ~~devices means~~: a ~~means device for maintaining to~~ maintain a constant spacing between ~~said the~~ first and third electrodes, and a ~~means for exerting~~ device to exert a constant force or stress upon one of the first and third electrodes relative to the other of the first and third electrodes.
5. (Canceled)
6. (Currently Amended) A memory device as claimed in claim 2, ~~wherein the~~ respective first electrodes ~~are being~~ arranged parallel to each other in a spaced apart manner

in a first plane, the respective second electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a second plane and the respective third electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a third plane, with the planes being parallel to each other, the first and third electrodes being parallel with each other and the second electrodes being perpendicular to the first and third electrodes.

7-16. (Canceled)

17. (Currently Amended) A memory device as claimed in claim 3, ~~wherein~~ the respective first electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a first plane, the respective second electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a second plane and the respective third electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a third plane, with the planes being parallel to each other, the first and third electrodes being parallel with each other and the second electrodes being perpendicular to the first and third electrodes.

18. (Currently Amended) A memory device as claimed in claim 4, ~~wherein~~ the respective first electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a first plane, the respective second electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a second plane and the respective third electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a third plane, with the planes being parallel to each other, the first and third electrodes being parallel with each other and the second electrodes being perpendicular to the first and third electrodes.

19. (Currently Amended) A memory device as claimed in claim 21, ~~wherein~~ the respective first electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a first plane, the respective second electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a second plane and the respective third electrodes ~~are~~being arranged parallel to each other in a spaced apart manner in a third plane, with the planes being parallel

to each other, the first and third electrodes being parallel with each other and the second electrodes being perpendicular to the first and third electrodes.

20. (Canceled)

21. (Previously Presented) A memory device comprising:

a plurality of first electrodes;

a plurality of second electrodes;

a plurality of third electrodes;

a plurality of memory cells provided corresponding to intersections between the plurality of first electrodes and the plurality of second electrodes; and

a plurality of comparators each of which has a first input and a second input,

each of the plurality of memory cells including a first layer including a piezoelectric material and a second layer including a ferroelectric material,

one second electrode of the plurality of the second electrodes being provided between the first layer and the second layer,

the first layer and the second layer being provided between one first electrode of the plurality of first electrodes and one third electrode of the plurality of third electrodes,

the one first electrode being connected to the first input included in one comparator of the plurality of comparators, and

the one third electrode being connected to the second input included in the one comparator.

22. (Currently Amended) A memory device as claimed in claim 21, ~~wherein said~~
the one comparator compares comparing a first signal between the one first electrode and the one second electrode with a second signal between the one third electrode and the one second electrode.